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Gang Luo

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EXAMINER

TRUONG, CAM Y T

ART UNIT

PAPER NUMBER

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/767,681	Applicant(s)	
	Examiner Cam Y T. Truong	Art Unit 2162	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/29/2004</u> . | 6) <input type="checkbox"/> Other: ____  |

**DETAILED ACTION**

1. Claims 1-26 are pending in this Office Action.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 8 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "the predefined lock conflicting with either a shared lock or an exclusive lock placed on the join view but not conflicting with another predefined lock placed on the join view" is recited in claims 8 and 18; page 25, line 5-7; page 28, lines 6-8, the phrase is unclear whether a shared lock but not conflicting with another predefined lock placed on the join view or an exclusive lock but not conflicting with another predefined lock placed on the join view or the predefined lock but not conflicting with another predefined lock placed on the join view.

***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

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5. Claims 1-26 are rejected under 35 U.S.C.101 because the language of the claim raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practice application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C 101.

Claims 1-26 recites "a method or a system". However, the claims fail to contain a computer that is used implemented the system so as to realize its functionality. Thus, the bodies of claims are merely abstract idea and are being processed without any links to a practical result in the technology arts and without computer manipulation.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 2, and 12-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Ganesh et al (or hereinafter "Ganesh") (US 6353828).

As to claim 1, Ganesh teaches the claimed limitations:

"a method for use with a database system that stores a join view associated with plural base relations" as (col. 3, lines 15-20), comprising:

"receiving modification operations that modify at least two of the base relations of the join view" as (col. 3, lines 38-46);

“re-ordering the received modification operations to avoid execution of modification operations of more than one of the at least two base relations at one time in the database system” as (col. 4, lines 15-45).

As to claim 2, Ganesh teaches the claimed limitation “wherein receiving the modification operations comprises receiving a first modification operation to modify a first base relation of the join view, and a second modification operation to modify a second base relation of the join view (col. 3, lines 38-53),

“ wherein re-ordering the modification operations comprises:

determining that the first modification operation conflicts with the second modification operation based on the first and second modification operations modifying more than one base relation of the join view” as (fig. 6, col. 3, lines 38-67; col. 4, lines 1-15); and

“selecting one of the first and second modification operations for execution in the database system” as (col. 4, lines 15-45).

As to claim 12, Ganesh teaches the claimed limitations:

“a method for use with a database system that stores a join view associated with plural base relations” as (col. 3, lines 15-20), comprising:

“receiving modification operations that modify at least two of the base relations of the join view” as (col. 3, lines 38-46);

re-ordering the received modification operations to avoid execution of

modification operations of more than one of the at least two base relations of the join view (col. 4, lines 15-45).

Claim 13 is rejected under the same reason as discussed in claim 2.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 3-5, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ganesh et al (or hereinafter "Ganesh") (US 6353828) in view of Findleton et al (or hereinafter "Findleton") (US 2005/0108231).

As to claim 3, Ganesh teaches the claimed limitations:

"wherein selecting one of the first and second modification operations comprises selecting the first modification operation" as (col. 4, lines 15-45).

Ganesh does not teach the claimed limitation "storing the second modification operation in a queue".

Findleton teaches adding transactions to execution queue (fig. 4).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Findleton's teaching of adding transactions to

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execution queue to Ganesh's system in order to prevent conflicts when two transaction access a record for modifying at the same time.

As to claim 4, Ganesh teaches the claimed limitation "waiting for the first modification operation to complete execution before scheduling the second modification operation for operation" as (col. 10, lines 45-67).

As to claim 5, Ganesh does not explicitly teach the claimed limitations:

"receiving a third modification operation to modify the first base relation of the join view, the method further comprising: storing the third modification operation in the queue; and scheduling the third modification operation for execution in the database system ahead of the second modification operation".

Findleton teaches receiving transaction to modify the database and storing all transaction in queue and scheduling of transactions (fig. 4, abstract; paragraph [0040]).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Findleton's teaching of receiving transaction to modify the database and storing all transaction in queue and scheduling of transactions to Ganesh system in order to prevent deadlock and further prevent conflicts when two transaction access a record for modifying at the same time.

Claim 14 is rejected under the same reason as discussed in claim 3.

Claim 15 is rejected under the same reason as discussed in claim 4.

10. Claims 6 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ganesh et al (or hereinafter "Ganesh") (US 6353828) in view of Findleton and further in view of Ngai et al (or hereinafter "Ngai") (US 6574717).

As to claim 6, Ganesh teaches the claimed limitations:

"receiving a third modification...modify distinct portions of the first base relation" as (col. 4, lines 45-67).

Ganesh does not explicitly teach the claimed limitations "submitting modifications operations to the database system in plural sessions, submitting the first and third modification operations through different sessions for concurrent execution in the database system".

Ngai teaches in step 232 the number of sessions is determined. In one embodiment involving a licensed database system, the number of sessions is the number of users who may use a database at one time according to the license for the database system. In another embodiment, the number of sessions is a system parameter determined during configuration to limit the number of concurrent users for performance reasons. The number of sessions is determined because the number of transactions executed concurrently by an instance, and consequently the amount of undo storage space used, is expected to depend on the maximum number of concurrent users (col. 14, lines 15-30).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Ngai's teaching of the number of sessions is



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determined. In one embodiment involving a licensed database system, the number of sessions is the number of users who may use a database at one time according to the license for the database system. In another embodiment, the number of sessions is a system parameter determined during configuration to limit the number of concurrent users for performance reasons. The number of sessions is determined because the number of transactions executed concurrently by an instance, and consequently the amount of undo storage space used, is expected to depend on the maximum number of concurrent users to Ganesh's system in order to allow resources to be recycled and allocated for new uses by other entities in a computer system, but also guarantee the resources are retained in a given state for consistent use by other entities, even after the entity terminates that first had the resource allocated and prevent network traffic when two transactions assigned in the same session.

Claim 16 is rejected under the same reason as discussed in claim 6.

11. Claims 6 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ganesh et al (or hereinafter "Ganesh") (US 6353828) in view of Findleton and further in view of Low (US 2005/0131966).

As to claim 6, Ganesh teaches the claimed limitations:

"receiving a third modification...modify distinct portions of the first base relation" as (col. 4, lines 45-67).

Ganesh does not explicitly teach the claimed limitations "submitting modifications operations to the database system in plural sessions, submitting the first and third modification operations through different sessions for concurrent execution in the database system".

Lou teaches transactions made during the database sessions (paragraph 0046).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Low's teaching of transaction made during the database sessions to Ganesh's system to prevent network traffic when two transactions assigned in the same session.

Claim 16 is rejected under the same reason as discussed in claim 6.

12. Claims 7, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ganesh et al (or hereinafter "Ganesh") (US 6353828) in view of Findleton and further in view of Ho (US 20040254933).

As to claim 7, Ganesh does teach explicitly the claimed limitation "receiving additional modification operations on the first base relation; grouping the modification operations on the first base relation into a transaction; submitting the transaction to the database system for execution".

Ho teaches the actions performed on the database are grouped into a series of transactions (paragraph [0005]).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Ho's teaching of the actions performed on the database are grouped into a series of transactions to Ganesh's system in order to reduce the possibility of a deadlock between separate transactions.

Claim 17 is rejected under the same reason as discussed in claim 7.

13. Claims 8 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ganesh et al (or hereinafter "Ganesh") (US 6353828) in view of Cochrane et al (or hereinafter "Cochrane") (US 6581205).

As to claim 8, Ganesh teaches the claimed limitations:

"in response to a modification operation to modify one of the base relations, placing an exclusive lock on the one base relation" as (col. 9, lines 20-30).

Ganesh does not explicitly teach the claimed limitation "placing a predefined lock on the join view, the predefined lock conflicting with either a shared lock or an exclusive lock placed on the join view but not conflicting with another predefined lock placed on the join view".

Cochrane teaches placing a U-lock on the record in the materialized view. The U-lock conflicting with shared lock (col. 9, lines 50-60).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Gochrane's teaching of placing a U-lock on the record in the materialized view. The U-lock conflicting with shared lock to Ganesh's system in

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order to avoiding deadlocks with other transactions that modifying at least one base table of the materialized view and to improve concurrency with other transactions.

Claim 18 is rejected under the same reason as discussed in claim 8.

14. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ganesh et al (or hereinafter "Ganesh") (US 6353828) in view of Lomet (US 6754657) and Anaya et al (or hereinafter "Anaya") (US 5940828).

As to claim 9, Ganesh does not explicitly teach the claimed limitations "storing pending modification operations in plural queues corresponding to respective plural session of the database system; and selecting one of the pending modification operations from the queues to schedule for execution in the database system based on whether the one pending modification operation conflicts with one or more executing modification operations in the database system".

Anaya teaches storing modification transactions in plural queues (figs. 2-10).

Lomet teaches schedule transactions to avoid conflicts between transactions (col. 4, lines 65-67; col. 5, lines 1-25).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Anaya's teaching of storing modification transactions in plural queues and Lomet's teaching of scheduling transactions to avoid conflicts between transactions to Ganesh's system in order to minimize transactions.

As to claim 10, Ganesh teaches the claimed limitation “determining that the one pending modification operation conflicts with the one or more executing modification operations in response to determining that the one pending modification operation modifies a different one of the base relations of the join view than a base relation of the join view modified by an executing modification operation” as (col. 10, lines 45-67).

15. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ganesh et al (or hereinafter “Ganesh”) (US 6353828) in view of Lomet (US 6754657) and Anaya et al (or hereinafter “Anaya”) (US 5940828) and Roffe et al (or hereinafter “Roffe”) (US 5442785).

As to claim 11, Ganesh does not explicitly teach the claimed limitation “applying a technique to prevent starvation of one of the pending modification operations in response to determining that the one pending modification operation has been in one of the queues for longer than predetermined time period”.

Roffe teaches FIG. 16 is a flow chart for the Timeout Function that checks the Message Response Wait Queue for suspended application programs which are waiting for response messages. The Timeout Function is used to detect processes which have been waiting for an extended period of time for one or more responses. When a program has been suspended for longer than a predetermined period of time, the Timeout Function will resume execution of the suspended program (fig. 16).

It would have been obvious to a person of an ordinary skill in the art at the time invention was made to apply Roffe’s teaching of the Timeout Function that checks the

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Message Response Wait Queue for suspended application programs which are waiting for response messages. The Timeout Function is used to detect processes, which have been waiting for an extended period of time for one or more responses. When a program has been suspended for longer than a predetermined period of time, the Timeout Function will resume execution of the suspended program to Ganesh's system in order to avoid deadlock situations and data corruption.

16. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ganesh et al (or hereinafter "Ganesh") (US 6353828) in view of Lomet (US 6754657) and Anaya et al (or hereinafter "Anaya") (US 5940828) and Goedken (US 2002/0133494).

As to claim 11, Ganesh does not explicitly teach the claimed limitation "applying a technique to prevent starvation of one of the pending modification operations in response to determining that the one pending modification operation has been in one of the queues for longer than predetermined time period".

Goedken teaches the queue manager 134 determines if the current message has been pending for longer than a predetermined period of time. Preferably, the queue manager 134 make this determination by cooperating with the message mapper 126 to subtract the value of the "Asked" timestamp field in the message map database 118 from the current date and by comparing the result to a predetermined time period (e.g., 10 days). The predetermined time period may be fixed for all messages or it may be defined by the information request message 18 (paragraph [0191]).

It would have been obvious to a person of an ordinary skill in the art at the time invention was made to apply Goedken's teaching of the queue manager 134 determines if the current message has been pending for longer than a predetermined period of time to Ganesh's system in order to avoid deadlock situations and data corruption.

17. Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ganesh et al (or hereinafter "Ganesh") (US 6353828) in view of Klotz (US 6889159).

As to claim 19, Ganesh teaches the claimed limitations:

"a controller to: receive modification operations to modify plural base relations of a join view, the modification comprising modification operations to modify a first base relation of the join view, and modification operations to modify a second base relation of the join view" as (col. 3, lines 35-60);

"re-order the received modification operations to avoid concurrent execution of modification operations of more than one of the plural base relations of the join view" as (col. 4, lines 15-45);

"the re-ordering to cause modification operations on the first base relation of the join view to be scheduled for execution" as (col. 5, lines 55-62; col. 4, lines 45-67)

Ganesh does not explicitly teach the claimed limitation "and to cause modification operations on the second base relation to be queued for execution after completion of the modification operations on the first base relation".

Klotz teaches Method 600 begins at step 610, by issuing a group of N write operations, each writing a block of test data patterns to corresponding blocks of

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memory on the target device 560. Hence, N I/Os are pending immediately after the group of write operations is dispatched. At step 620, the test thread 522 waits for all the write operations in the group to complete. Thus, as the individual write operations complete, the number of pending write operations is reduced (from N to zero, when the last write operation is complete). As each write operation completes, the test thread de-queues the completed operation, so that a depth of the I/O queue 524 is fluctuating. At step 630, if the end-of-file or end of range is reached, a group of read operations is issued at step 640. As each read operation completes, the data patterns read from the target device are validated (i.e., compared to the test data patterns) at step 650 to test for data corruptions. At step 660, the test thread 522 waits for all the read operations in the group to complete. Thus, as the individual read operations complete, the number of pending read operations will be reduced from N to zero (when the last read operation is completed) (fig. 6, col. 14, lines 60-67; col. 15, lines 1-20).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Klotz's teaching of executing read operations in the queue after write operations in queue are executed completely to Ganesh's system in order to prevent concurrent execution and increasing response time latency and further to load modification operations in queues for modifying tables in a database without conflicting or corrupting.



As to claim 20, Ganesh teaches the claimed limitation “wherein the controller is adapted to identify the modification operations on the second base relation as conflicting with modification operations on the first base relation in response to determining that the modification operations on the second base relation are modifying a different base relation of the join view than the modification operations on the first base relation” as (col. 10, lines 45-67).

18. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ganesh et al (or hereinafter “Ganesh”) (US 6353828) in view of Klotz and further in view of Ngai et al (or hereinafter “Ngai”) (US 6574717).

As to claim 21, Ganesh teaches the claimed limitations:

“determine that the modification operations on the first base relation modify distinct portions of the first base relation” as (col. 4, lines 50-60);

“in response to determining that the modification operations on the first base relation modify distinct portions of the first base relation” as (col. 4, lines 45-67).

Ganesh does not explicitly teach the claimed limitations “a first system and wherein the controller is adapted to open plural sessions with a database system separate from the first system, submit the modification operations on the first base relation through different sessions for concurrent execution in the database system”.

Ngai teaches in step 232 the number of sessions is determined. In one embodiment involving a licensed database system, the number of sessions is the

number of users who may use a database at one time according to the license for the database system. In another embodiment, the number of sessions is a system parameter determined during configuration to limit the number of concurrent users for performance reasons. The number of sessions is determined because the number of transactions executed concurrently by an instance, and consequently the amount of undo storage space used, is expected to depend on the maximum number of concurrent users (col. 14, lines 15-30).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Ngai's teaching of the number of sessions is determined. In one embodiment involving a licensed database system, the number of sessions is the number of users who may use a database at one time according to the license for the database system. In another embodiment, the number of sessions is a system parameter determined during configuration to limit the number of concurrent users for performance reasons. The number of sessions is determined because the number of transactions executed concurrently by an instance, and consequently the amount of undo storage space used, is expected to depend on the maximum number of concurrent users to Ganesh's system in order to allow resources to be recycled and allocated for new uses by other entities in a computer system, but also guarantee the resources are retained in a given state for consistent use by other entities, even after the entity terminates that first had the resource allocated and prevent network traffic when two transaction assigned in the same session.

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19. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ganesh et al (or hereinafter "Ganesh") (US 6353828) in view of Klotz and further in view of Lou (US 2005/0131966).

As to claim 21, Ganesh teaches the claimed limitations:

"determine that the modification operations on the first base relation modify distinct portions of the first base relation" as (col. 4, lines 50-60);

"in response to determining that the modification operations on the first base relation modify distinct portions of the first base relation" as (col. 4, lines 45-67).

Ganesh does not explicitly teach the claimed limitations "a first system and wherein the controller is adapted to open plural sessions with a database system separate from the first system, submit the modification operations on the first base relation through different sessions for concurrent execution in the database system".

Lou teaches transactions made during the database sessions (paragraph 0046).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Lou's teaching of transaction made during the database sessions to Ganesh's system to prevent network traffic when two transactions assigned in the same session.

20. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ganesh et al (or hereinafter "Ganesh") (US 6353828) in view of Klotz and further in view of Findleton et al (or hereinafter "Findleton") (US 2005/0108231).

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As to claim 22, Ganesh does teach explicitly the claimed limitation "a first system... grouping the modification operations on the first base relation into a transaction; submitting the transaction to the database system for execution".

Ho teaches the actions performed on the database are grouped into a series of transactions (paragraph [0005]).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Ho's teaching of the actions performed on the database are grouped into a series of transactions to Ganesh's system in order to reduce the possibility of a deadlock between separate transactions.

21. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ganesh et al (or hereinafter "Ganesh") (US 6353828) in view of Klotz and further in view of Garth et al (or hereinafter "Garth") (US 6678701).

As to claims 23, Ganesh does not explicitly teach the claimed limitation "wherein the controller comprise a load utility to submit the modification operations to a database system".

Garth teaches a load utility (col. 1, lines 60-65).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Garth's teaching of a load utility to Ganesh's system in order to execute all operations in a database without conflicting.

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22. Claims 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ganesh et al (or hereinafter "Ganesh") (US 6353828) in view of Klotz and further in view of Garth et al (or hereinafter "Garth") (US 6678701), and Desai et al (or hereinafter "Desai") (US 6567816).

As to claim 24, Ganesh does not explicitly teach the claimed limitation "a continuous load utility".

Desai teaches load utility have to extract the data from the columns in the record that correspond to the index key and then add such data to the index columns (col. 5, lines 45-50).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Desai's teaching of load utility have to extract the data from the columns in the record that correspond to the index key and then add such data to the index columns to Ganesh's system in order to extract the data from a database.

As to claim 25, Ganesh does not explicitly teach the claimed limitation "the load utility comprise a first load utility, and the controller comprises a second load utility to concurrently submit other modification operations to the database system".

Garth teaches load utilities (col. 1, lines 60-65).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Garth's teaching of a load utility to Ganesh's system in

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order to load operations for scheduling executing all operations in a database without conflicting.

23. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ganesh et al (or hereinafter "Ganesh") (US 6353828) in view of Klotz and further in view of Garth et al (or hereinafter "Garth") (US 6678701), and Desai et al (or hereinafter "Desai") (US 6567816) and Papierniak et al (or hereinafter "Papierniak") (US 6151601).

As to claim 26, Ganesh does not explicitly teach the claimed limitation "plural platforms on which corresponding first and second load utilities are executable".

Papierniak teaches platforms for corresponding to load utilities (abstract, col. 9, lines 15-20).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Ganesh's teaching of platforms for corresponding to load utilities to Ganesh's system in order to improve executing load utilities quickly without traffic.

### ***Conclusion***

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure

Lawande et al (US 6882993).

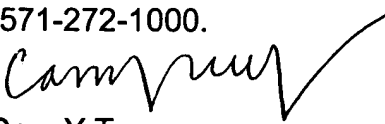
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**Contact Information**

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cam Y T. Truong whose telephone number is (571) 272-4042. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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